

REMARKS

Claims 1 and 7-13 are pending. By an Office Action dated July 11, 2007, the Examiner in charge of this case acknowledged applicants' RCE and withdrew the finality of the prior office action. The Examiner withdrew rejections based upon Root in view of Fodor and based upon Root in view of Fodor and Bell but rejected pending claims 1 and 7-13 under 35 USC 103(a) over Rava (US 5545531) in view of He (US 20030049862). The applicants respond by submitting the amendments above and comments below. Based on this submission, reconsideration of the merits of this patent application is respectfully requested.

Rava ('531) describes a system for introducing a sample or samples to a reaction space, and in particular to a well containing a microarray. Attention is directed to sections B and C in columns 7 - 9 of Rava. He ('862) describes various microfluidic systems also suited for use in introducing samples into a reaction space. In all instances, upon introduction of the sample or samples into a channel of the systems of the cited art, the sample flows directly to the reaction surface, which can be a surface containing a microarray. In other words, the first contact between the sample and the devices necessarily results in simultaneous introduction of the sample to the reaction space.

Independent method claims 1 and 7 are amended to clarify that applicants' method is a two step process whereupon a sample is introduced to a micro-channel of a sample loading array, and then the sample loading array is brought into contact with the microarray such that the samples in the micro-channels are permitted to flow into contact with the microarray substrate and so that a hybridization reaction can occur. In contrast, the cited documents at best only contemplates direct introduction in a single step of a sample to a reactive region. As a result, the cited documents cannot provide for a method whereby a sample-containing sample loading array is kept away from the microarray (or sub-arrays) until such time as the hybridization reaction is performed.

A prior amendment of the claims recited that the samples are loaded into the micro-channels formed "between the two surfaces" of the sample loading array. This is consistent with applicants' position that the samples are retained in the micro-channels until the second step of

the method, whereupon the samples are permitted to flow into contact with the substrate on the microarray.

The Examiner referred to Rava's mention of a vacuum. That reference is entirely unrelated to sample movement or handling. Instead, the single reference to a vacuum in Rava relates to a method for sealing a body (e.g., a well) to a wafer containing, e.g., a microarray. In applicants' methods, a vacuum can be applied to draw the samples from the sample loading array into contact with the microarrays (or sub-arrays).

Reconsideration is respectfully requested.

A petition for an extension of time for three months accompanies this response so the response will be timely filed. No other extension of time is believed due, but if an extension is due in this or any subsequent response, please consider this to be a petition for the appropriate extension and a request to charge the petition fee due to Deposit Account No. 17-0055. No other fee is believed due, but if any other fee is due in this or any subsequent response, please consider this to be a request to charge the fee to the same Deposit Account.

Applicant is no longer entitled to status as a small entity.

Respectfully submitted,

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